

Technical Memorandum



To: Paul Huebschman
From: Chris Moody & Jeff Wallace
Date: May 22, 2001
Subject: Testing and Disposal of Retrieved Items - Bradford Island Landfill

USACE contracted URS Corporation (URS) to conduct an additional investigation of the near-shore area of Bradford Island under Contract DACW57-99-D-0005 Delivery Order No. 0004, dated March 26, 2001. Section 3.7 of this DO specifies waste management activities required related to materials recovered during past dive work (i.e., electrical items), as well as the remaining drums in investigative-derived wastes generated during upland investigations. Waste management activities included review of available chemical data and other information regarding the wastes, supplemental testing and characterization as necessary, waste containerization, development of waste stream profiles, and assistance to the USACE with respect to preparation of hazardous waste manifests.

URS conducted a site reconnaissance on April 3, 2001 to inventory the wastes and obtain information needed to assist in performance of these waste management tasks. As noted above, two general waste streams have been generated, including:

- 1) Investigative-derived waste (IDW) from upland investigations conducted by TetraTech and URS between 1998 and 2000. This waste includes equipment decontamination fluids, soil cuttings from borehole drilling, drilling fluids, and well development and purge water.
- 2) Electrical equipment removed from the river near the landfill, including electrical light ballasts, lightning arrestors, electrical panels, and other items.

This memo describes URS's activities and presents our recommendations for management of each of the waste streams.

IDW Wastes

IDW was generated during both the Site Inspection (SI) conducted in 1998 by TetraTech, as well as during the Supplemental Site Inspection (SSI) during 1999-2000 by URS. In accordance with URS' DO 0002, samples of the IDW were collected and analyzed; waste management was not addressed in that assignment.

Fourteen (14) samples of containerized IDW generated during the SI and SSI were collected and analyzed. A copy of the IDW sample locations, identification numbers, and analytical results are included as Attachment A. This information was presented in the SSI report (June 2000).

Soil Characterization

Based on these results, three drums containing soil cuttings require off-site disposal. The contents of the remaining drums containing soil cuttings may be disposed of at the Bradford Island landfill. The soil cuttings associated with MW-4 (two drums) contained lead above the RCRA regulatory level (5 mg/L as measured by TCLP) therefore; these soils are regulated as

a characteristic (toxic) hazardous waste (40 CFR 261.24). These drums have been labeled as 06-IDW-#07 and 06-IDW-#08. The soil cuttings associated with MW-5 and SB-6 contained TPH above 100 mg/kg are therefore regulated as special waste (OAR-340-093-170). This drum has been labeled as drill cuttings-IDW14.

Soil Profiling

Two separate waste profiles have been developed for off-site disposal of these materials, including one for the two drums of hazardous waste (lead) contaminated soils, and one for the drum of petroleum-contaminated soils. These profiles were developed with the assistance of personnel from ONYX Environmental, at the request of Brian McCavitt of the USACE. The profiles are included as Attachment B.

Liquid Characterization

Several categories of liquid IDW have been generated during the upland investigations at the landfill, including decontamination fluids, well development and purge water, and drilling fluids. All are essentially water, with some entrained soil particulates and/or bentonite (clay), and have little or no contamination associated with them according to the available testing data.

Matt McClincy at the Department of Environmental Quality (DEQ), has indicated in an August 22, 2000 phone conversation with URS that given the low levels of contaminants found in these material, it can be discharged to the ground surface of the landfill. This information was conveyed to Mr. McCavitt via telephone on May 11, 2001, and in an electronic mail message dated August 25, 2000. A copy of the email is included as Attachment C.

Scheduling/Transportation

The soil profiles were signed by Mr. McCavitt on May 18, 2001 and then were provided to the disposal facilities for profile approval. The drums will be disposed of at the Chemical Waste Management landfill in Arlington, Oregon. The profiles are currently awaiting approval by the disposal facility and will be scheduled for pick up and disposal following approval. Mr. McCavitt requested that URS schedule the transportation task with ONYX Environmental, and to arrange with Mr. Pat Hunter to sign the manifests for these wastes.

The drums will not require additional containerization prior to transportation, however they will need to be labeled, manifested and the vehicle will require placarding prior to transportation. URS will work with the USACE's preferred waste contractor (ONYX Environmental) to ensure proper labeling and placarding occurs.

The remaining drums of soil IDW and the drums of liquid IDW may be disposed of at the landfill by the USACE as scheduling allows.

Electrical Equipment

Electrical equipment was generated during the SSI report (a light ballast was discovered during the seep sampling event in the Spring 2000) as well as during the subsequent dive

survey in November, 2000 and the recovery operations in December, 2000. The light ballast found during the seep sampling event and the equipment recovered during the dive survey in November were placed by the USACE into DOT approved 55 gallon drums for characterization and disposal. Characterization of the materials removed from the landfill and during the November dive was conducted by the USACE on November 11, 2000.

The electrical equipment generated during the December recovery operations was placed into "super sacks" and then these sacks were placed by the USACE into two 20-yard capacity roll-off bins. In accordance with DO 0003, USACE maintained responsibility for the management of these wastes.

Two profiles were prepared by the USACE for disposal of these materials by Mr. McCavitt. These profiles were prepared using the analytical results from the November 11, 2000 testing conducted by the USACE. One profile covered the non-hazardous debris, and one covers any PCB equipment that contains greater than 499 ppm of PCBs. Copies of these profiles are included in Attachment D.

URS understands that the two roll-off bins were disposed of by the USACE using the non-hazardous debris profile. However, during the site reconnaissance it was discovered that two super sacks that were not placed into the roll off bins had not disposed of and remained at the hazardous waste storage area on Bradford Island.

Electrical Equipment Characterization

The electrical equipment removed from the river and the landfill can be summarized into three waste streams based on TSCA regulations:

- PCB Capacitors
- PCB-Contaminated Electrical Equipment (ballasts)
- Non-hazardous electrical equipment (less than 50 ppm of PCBs)

PCB capacitors, regardless of level of contamination, are required to be disposed in an incinerator (40 CFR 761.60). The ballasts can be disposed in a landfill, if all the free-flowing liquid is removed from the ballast. Since the ballasts recovered thus far from the Bradford Island Site and inspected by the USACE did not contain free-flowing liquid, these may be disposed of at a hazardous waste (RCRA Subtitle C) landfill.

Electrical Equipment Profiling

Three separate waste profiles have been prepared for electrical equipment, including two for the PCB capacitors and ballasts, and one for the non-hazardous electrical equipment). The first two profiles were developed with the assistance of personnel from ONYX Environmental; the third profile was previously developed by Mr. McCavitt in December 2000. Copies of these profiles are included in Attachment E.

Based on the site reconnaissance and communication with Mr. McCavitt: Three drums contain capacitors, three drums contain ballasts and other debris, and three drums and two "super sacks" contain non-hazardous electrical debris.

Scheduling/Transportation

The profiles were signed by Mr. McCavitt on May 18, 2001 and then were provided to the disposal facilities for profile approval. The non-hazardous debris contained in the super sacks will be disposed of at the Columbia Ridge Landfill in Arlington, Oregon, and the drums containing the PCB capacitors will be incinerated at Waste management's facility in Texas. The remaining electrical equipment will be disposed of at the Chemical Waste Management landfill in Arlington, Oregon. The profiles are currently awaiting approval by the disposal facilities, and will be scheduled for pick up and disposal following approval. Again, Mr. McCavitt requested that URS schedule the transportation task with ONYX Environmental, and to arrange with Mr. Pat Hunter to sign the manifests for these wastes. URS anticipates that the PCB wastes and the IDW wastes will be able to be picked up at the same time.

The drums will not require additional containerization prior to transportation, however they will need to be labeled, manifested and the vehicle will require placarding prior to transportation. URS will work with the USACE's preferred waste contractor (ONYX Environmental) to ensure proper labeling and placarding occurs. The super sacks will require placement into a DOT approved container, prior to transportation.

Summary of Waste Management

Five waste streams generated during the investigation and removal activities at the Bradford Island Landfill will require off-site disposal at three different disposal facilities, including:

Columbia Ridge Landfill-Arlington, Oregon

1. Two super sacks that contain non-hazardous electrical equipment.
2. The one drum of soil cuttings that contain TPH above the DEQ Special Waste level of 100 mg/kg.

Chemical Waste Management Incinerator- Port Arthur, Texas

3. Three drums that contain capacitors (the inerteen and coupling capacitors).

Chemical Waste Management Landfill- Arlington, Oregon

4. The two drums of soil cuttings that contain lead above the RCRA regulatory level of 5 mg/L.
5. The remaining electrical equipment (three drums), including the light ballasts.

Two waste streams generated during the investigation will be disposed of at the Bradford Island Landfill site:

1. The contents of the drums containing decontamination and drilling fluids (25 drums).
2. The contents of the remaining drums of soil cuttings not requiring off-site disposal (4 drums).

Current Status

As indicated above, the profiles for the waste streams requiring off-site disposal are currently pending approval from the identified disposal facilities. Once the approvals are obtained, URS will work with Mr. Brian McCavitt and Mr. Pat Hunter of the USACE to coordinate the manifesting, containerization and transportation of these waste streams.

The USACE may dispose of the other remaining wastes at the landfill, as scheduling allows. The information provided within this technical memorandum allows the USACE to select which drums of wastes generated during the investigation may be disposed at the Bradford Island landfill.

ATTACHMENT A
IDW Analytical Results Table

IDW Sample Results
Bradford Island Landfill
Cascade Locks, Oregon

Sample Identification	Sample Location/Drum Label	Abbreviated Sample ID	Media	TCLP Metals (mg/L)	TPH (DRO/RRO/GRO) (ppm)	PCBs/Pesticides (ppm)
990921BIL01IDW	Drum 1 near test pit 8 (Tetra Tech, 1998)	01IDW	Decon Water	NA	2.1/4.3/0	None
990921BIL02IDW	Drum 2 near test pit 8 (Tetra Tech 1998)	02IDW	Decon Water	NA	0.24/0/0	None
990921BIL03IDW	Drum 3 near test pit 8 (Tetra Tech 1998)	03IDW	Decon Water	NA	0.55/0/0.1	None
990921BIL04IDW	Drum 4 near MW-1	04IDW	Decon Water	NA	2.7/12/0	None
990922BIL05IDW	MW3 (Drums 5 and 6)	05IDW	Soil Cuttings	None	None	None
990922BIL06IDW	MW4 (Drums 7 and 8)	06IDW	Soil Cuttings	25-Lead	390/1400/0	None
990922BIL07IDW	MW2 (Drums 9, 10, 11)	07IDW	Soil Cuttings	0.2-Barium	None	None
990922BIL08IDW	MW1 (Drums 12, 13, 14)	08IDW	Soil Cuttings	None	NA	NA
991007BIL09IDW	Drum 1 of 3 near MW2 (URS, 1999)	09IDW	Decon Water	NA	0.4/0/0	None
991007BIL10IDW	Drum 2 of 3 near MW2 (URS, 1999)	10IDW	Decon Water	NA	0.81/0/0	None
991007BIL11IDW	Drum 3 of 3 near MW2 (URS, 1999)	11IDW	Decon Water	NA	0.58/0/0.11	None
991007BIL12IDW	Piezometer DH2002Z drilling fluid (composite of 7 drums)	12IDW	Drilling Fluid	NA	1.1/0/0.1	None
991007BIL13IDW	Piezometer DH2002Z (Drum 8)	13IDW	Soil Cuttings	1.2-Barium/ 0.1-Lead	None	0.076-PCBs
991007BIL14IDW	MW5 and SB6 (URS, 1999)	14IDW	Soil Cuttings	0.6-Barium/ 0.01-Cadmium/ 0.7-Lead	130/540/47	0.14-PCBs/ 0.01-Alpha-Chlordane

ATTACHMENT B
IDW Waste Profiles

ONYX ENVIRONMENTAL SERVICES, LLC5720C NE 121st Avenue, Suite 105, Vancouver, Washington 98682-6244☐ Recertification**WASTESTREAM INFORMATION PROFILE****CM0672**

Approval Code

TSDF requested ARL Technology requested STAB Generator No. 451420 Generator EPA No. OR01401132181. Generator Name US Army Corps of Engineers

Generator State No.

Address Bonnyville Lock and Dam

State Wastestream No.

City Cascade LocksState OregonCountry USAZIP 97014-0150SIC Code 4911Source A62Origin 1Form H302System Type M112. Waste Name Soil Contaminated with Lead

Lab or Waste Area

3. Process Generating Waste Clean up of Bradford Island Landfill4. Shipping Name RQ Hazardous Waste, Solid, n.o.sHazard Class 9 UN/NA No. NA3071 PG III RQ num 10RQ Desc: 1 D0082DOT Desc: 1 Lead2345. Waste Codes D018

Wastewater

Non Wastewater

Sub Category

6. Physical and chemical properties

PH	Specific Gravity	Flash Point (F)	Solids	% ash
a < 2	a < 8	a < 80	% suspended	water solubility
b 2-5	b 8-10	b 80-100	% settleable	BTU/lb
c <u>X</u> 5-9	c 10	c 101-140	% dissolved	
d 9-12.5	d 10-12	d 141-200		
e > 12.5	e <u>X</u> > 12	e > 200	Free Liquid Range	0 to 0 %
exact	exact	f <u>X</u> no flash	exact	

Physical State

s X solid
 m semi-solid
 l liquid
 p pumpable semi-solid
 f flowable powder
 g gas
 a aerosol
 r pressurized liquid
 d debris per CFR 261.45
 n shape

Hazardous Characteristics

a air reactive
 w water reactive
 c cyanide reactive
 f sulfide reactive
 e explosive
 o oxidizing acid
 p peroxide former
 s shock sensitive
 t temp sensitive
 m polymerization/monomer
 n carcinogen
 i infectious
 h inhalation hazard
 /one: A, B, C, D

Odor/Describe:

a none X
 b mild
 c strong
 Halogens
 Br % Bromine
 Cl % Chlorine
 F % Fluorine
 I % Iodine

Layers: a multi-layered b bi-layered c X single phase

Viscosity	a high (syrup)	a high (syrup)	a high (syrup)
By	b medium (oil)	b medium (oil)	b medium (oil)
Layer:	c low (water)	c low (water)	c low (water)
	d solid	d solid	d <u>X</u> solid

Used oil y/n

☐ IROC < 1000 ppm
☐ or > 1000 ppm

WIP NO. **562720**

7 Chemical Composition (M = Major Pollutant, O = Ozone Depleting Substance, U = Unhazardous Constituents, T = Toxic Chemical, C = Carcinogen)

Constituents	Range	Units	Constituents	Range	Units
Soil	98	100%			
Lead	25	ppm			
Plastic, PPH	0	25%			

Total Composition Must Equal or Exceed 100%

Other:

8 Is the wastestream being imported into the USA? Yes No ☒ X9 Does the wastestream contain PCBs regulated by 40CFR? Yes No ☒ X

PCB concentration _____ ppm

10 Is the wastestream subject to Benzene NESHAP Notification and Control Requirements? Yes No ☒ X

If yes, concentration _____ ppm

11 Is the wastestream subject to RCRA subpart CC controls? Yes No ☒ X

Volatile organic concentration, if known _____ ppmw

CC approved analytical method _____ Generator Knowledge ☒ X12 Is the wastestream from a CERCLA or state mandated cleanup? Yes No ☒ X

13. Container Information (Identify UN container marking if known)

Packaging: Bulk Solid _____ Type/Size: _____ Bulk Liquid _____ Type/Size: _____ Drum ☒ X Type/Size: 551A2

Other _____

Shipping Frequency: _____ Units _____ Per Month _____ Quarter _____ Year ☒ X One time _____ Other _____

14. Additional Information:

GENERATOR CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

Brian McCorrith
NAME (PRINT OR TYPE)

541-324-4575
PHONE

5-12-01
DATE

[Signature]
SIGNATURE

ECC
TITLE

FACILITY NOTIFICATION

If approved for management, ONYX has all the necessary permits and licenses for the waste that has been characterized and identified by this profile.

WIP NO. S62720

ONYX ENVIRONMENTAL SERVICES, LLC

5720C NE 121st Avenue, Suite 105, Vancouver, Washington 98682-6244☐ Recertification

WASTESTREAM INFORMATION PROFILE

Approval Code

TSD/ requested OWS Technology requested DLF Generator No. 453420 Generator EPA No. OR01401132181. Generator Name US Army Corps of Engineers

Generator State No.

Address Bonneville Lock and Dam

State Wastestream No.

City Cascade LocksState OregonCountry USAZIP 97014-0150SIC Code 4911Source A69Origin 1Form B302System Type M1322. Waste Name Soil Contaminated with TPH

Lab or Waste Area

3. Process Generating Waste Clean up of Bradford Island Landfill4. Shipping Name Non-Regulated Material per 40 and 49 CFR

Hazard Class

UN/NA No.

PG

EQ amt

EQ Desc.: 12DOT Desc.: 1. Oil Contaminated Soil2.3.45. Waste Codes None

Wastewater

Non Wastewater

Sub Category

6. Physical and chemical properties

PH	Specific Gravity	Flash Point (F)	Solids	% ash
a <u><2</u>	a <u><.8</u>	a <u><80</u>	% suspended	water solubility
b <u>2-5</u>	b <u>.8-1.0</u>	b <u>80-100</u>	% settleable	BTU/lb
c <u>X 5-9</u>	c <u>1.0</u>	c <u>101-140</u>	% dissolved	
d <u>9-12.5</u>	d <u>1.0-1.2</u>	d <u>141-200</u>		
e <u>>12.5</u>	e <u>X >1.2</u>	e <u>>200</u>	Free Liquid Range <u>0</u> to <u>0</u> %	
<u>exact</u>	<u>exact</u>	f <u>X no flash</u>		

Physical State

Hazardous Characteristics

a <u>X solid</u>	a <u>air reactive</u>	f <u>irritant</u>
m <u>semi-solid</u>	w <u>water reactive</u>	s <u>shock sensitive</u>
l <u>liquid</u>	c <u>cyanoide reactive</u>	t <u>temp sensitive</u>
p <u>pumpable semi solid</u>	f <u>sulfide reactive</u>	m <u>polymerization/monomer</u>
fl <u>flowable powder</u>	e <u>explosive</u>	n <u>carcinogen</u>
g <u>gas</u>	o <u>oxidizing acid</u>	i <u>infectious</u>
a <u>aerosol</u>	p <u>peroxide former</u>	h <u>inhalation hazard</u>
r <u>pressurized liquid</u>		Zone: A, B, C, D
d <u>debris per CFR 261.45</u>		
n <u>slurps</u>		

Odor/Describe

a none X
b mild
c strong

Halogens

Hr 0 % Bromine
Cl 0 % Chlorine
F 0 % Fluorine
I 0 % Iodine

Layers: a multi layered b bi-layered c X single phase

Viscosity: a high (syrup) b high (syrup) c high (syrup)
By: b medium (oil) d medium (oil) d medium (oil)
Layer: c low (water) c low (water) c low (water)
d solid d solid d X solid

Used oil y/n no
☐ HCM <1000 ppm
☐ or >1000 ppm

WIP NO. 562719

Chemical Composition: [M - Mixed Pollutant, O - Other Depleting Substance, U - Underlying Hazardous Constituent, I - Inert Chemical, C - Carcinogen]

C constituents			Constituents		
	Range	Units		Range	Units
Soil	98	100%			
TPH	540	ppm			
Plastic, PPE	0	2%			

Total Composition Must Equal or Exceed 100%

Other:

5. Is the wastewater being imported into the USA? Yes ___ No ☒6. Does the wastewater contain PCBs regulated by 40CFR? Yes ___ No ☒

PCB concentration _____ ppm

0. Is the wastewater subject to Benzene NESHAP Notification and Control Requirements? Yes ___ No ☒

If yes, concentration _____ ppm

1. Is the wastewater subject to RCRA subpart CC controls? Yes ___ No ☒

Volatile organic concentration, if known _____ ppmw

CC approved analytical method _____ Generator Knowledge ☒2. Is the wastewater from a CERCLA or state mandated cleanup? Yes ___ No ☒

13. Container Information (Identify UN container marking if known)

Packaging: Bulk Solid Type/Size _____ Bulk Liquid Type/Size _____ Drum ☒ Type/Size 551A2

Other _____

Shipping Frequency: Units _____ Per Month _____ Quarter _____ Year ☒ One Time _____ Other _____

14. Additional Information:

GENERATOR CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

Brian McCavitt
NAME (PRINT OR TYPE)

541-374-4575
PHONE

5-18-01
DATE

[Signature]
SIGNATURE

ECC
TITLE

FACILITY NOTIFICATION

If approved for management, ONYX has all the necessary permits and licenses for the waste that has been characterized and identified by this profile.

WIP NO. 562719

ATTACHMENT C

**E-mail conveying DEQ approval of discharge of liquid IDW wastes to the
Bradford Island Landfill**

George Lukert

08/25/2000 07:40 AM

To: Paul.A.Huebschman@nwp01.usace.army.mil

cc: Jeffrey Wallace/Portland/URSCorp@URSCORP

Subject: Bradford Island - IDW

Paul,

I wanted to pass along some IDW information I received from DEQ. On Tuesday (8/22), I spoke with Matt McLincy to discuss disposal options for IDW water as part of our costing effort for Task Order 0003. During the conversation, I suggested to Matt that decon and IDW water could be used for dust suppression or discharged to the ground surface, given the low levels of contaminants observed during previous investigations. Matt agreed that purge water and decon water sampled during the SSI could be used for dust control during upcoming excavation operations or could be discharged to the ground surface. However, Matt doesn't want IDW waters discharged directly to the river or on top of the landfill so as not to create a "slug" of water passing through the landfill debris. I hope this is helpful.

Thanks,

George

ATTACHMENT D

Previous Electrical Equipment Profiles



WASTE MANAGEMENT
Columbia Ridge, Hillsboro, Riverbend, Graham Road, Capitol, Wenatchee

WASTE PROFILE SHEET TERMS & CONDITIONS

Profile Number: _____

Expiration Date: _____

Profile Addendum Attached?

☐ Yes ☐ No

Service Agreement on File?

☐ Yes ☐ No

This form is to be used to comply with the requirements of governmental waste screening criteria.

1. Generator/Site Name: US Army Corps of Engineers 2. SIC Code: 9999
3. Site Address: Bonneville Lock & Dam 4. Site City: Cascade Locks
5. Site State: OR 7. Zip Code: 97014 6. Site Country: _____
8. Generator USEPA/Federal ID#: OR 0140113218 9. Site Phone: _____
10. Customer Name: Foss Environmental 11. Customer Phone: 503-978-7274
12. Customer Contact: K. Benedict 13. Customer FAX: 503-289-6568

1. Waste Description, Category: Ceramic, debris 3. Billing Address: Foss Environmental
2. State Waste Code: N/A 5420 N. CAGGON Ave
4. Process Generating Waste: ceramic electrical Portland, OR 97217
equipment, circuit boards, plastic, debris
5. Transporter/Transfer Station: Foss Environmental 6. Shipping Method: 20 yd Box
7. Estimated Quantity (Weight & Vol.): ~10-15 yds per ☒ Job ☐ Year ☐ Other _____
8. Delivery Date(s): 12/22/00
9. Personal Protective Equipment Requirements: NONE
10. Is this a US Dept. of Transportation (USDOT) Hazardous Material?
☐ Yes ☒ No (If no, skip 10, 11 and 12) 11. Reportable Quantity: _____
12. Hazard Class / I.D. #: _____ 13. Shipping Name: NON RCRA / NON DOT Regulated
☒ Check if additional information is attached. Indicate the number of attached pages: 1

	Yes	No
1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by USEPA, Canadian, Mexican, State, or Provincial regulation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentrations of Polychlorinated Biphenyls (PCBs)?	<input type="checkbox"/>	<input checked="" type="checkbox"/> (~6ppm)
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Has all relevant information within the possession of the Generator and Customer regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules?	<input checked="" type="checkbox"/>	<input type="checkbox"/> N/A
6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. Management Method: _____
2. Designated Facility: _____ 3. Hours of acceptance: _____ ☐ N/A
4. Precautions, Special Handling Procedures, or Limitations on Approval: _____

Generic Approval: ☐ Yes ☐ NoSpecial Waste Decision: ☐ Approved ☐ Disapproved

Sales Person: _____ Date: _____ Technical Manager: _____ Date: _____

GENERATOR AND CUSTOMER MUST READ AND SIGN REVERSE HEREOF INITIAL _____
INITIAL _____



5736 W. Jefferson Street, Phoenix Arizona 85043
Tel: (602) 233-2955 Fax: (602) 415-3030

MATERIAL PROFILE SHEET

PCB, PCB-CONTAMINATED,
NON-PCB, and NO PCB EQUIPMENT

Where is the waste generated?

Generator Name US Army Corps of Engineers

2. EPA ID No. OR 0140113218

Facility Address Bonneville Lock and Dam

Facility City, State Cascade Locks OR

Zip Code 97014

Technical Contact Brian McCavitt

Phone 541-374-4575

Where should the invoices and disposal tracking documents be sent?

Same as address above

Company Name Foss Environmental

Company Address 5420 N. LAGAN Ave

Company City, State Portland OR

Zip Code 97217

Contact K. Benedict

Phone 503-978-7274

What is the rate of generation and quantities?

Estimated frequency of generation: ☒ One-time - or - times over a period of month(s) / year(s)
(mark if applicable) (circle one)

Estimated Quantity: ~200 lbs / kg / drums / units - per - month(s) / year(s)
(circle one) (circle one)

Choose ONE of the following waste streams per this form. For more than one waste stream, complete an additional form.

- ☐ Non-Leaking PCB Lamp Ballasts (B90)
- ☐ "No PCB" Ballasts 0ppm (C90)
- ☐ Non-PCB Equipment <50ppm (F91-F99)
- ☐ Non-PCB Oil <50ppm (F100)
- ☐ Non-PCB Small Capacitors <50ppm (G90)
- ☐ Non-PCB Soil and Debris Non-RCRA (F103/F104)
- ☐ Non-PCB Transformer Bushings (F102)
- ☐ Non-PCB Wire and Cable <50ppm (F105)
- ☐ Leaking PCB Ballasts (A90)

- ☐ PCB Small Capacitors >49ppm (A91)
- ☐ PCB Large Capacitors >49ppm (A92)
- ☒ PCB Equipment >499ppm (A98/A99/A102/A103)
- ☐ PCB Oil >49ppm (A95)
- ☐ PCB Soil and Debris Non-RCRA (A93)
- ☐ PCB Wire and Cable >499ppm (A105)
- ☐ PCB-Contaminated Equipment 50-499ppm (A97/A98/A100/A101)
- ☐ PCB-Contaminated Water (A94)
- ☐ PCB-Contaminated Wire/Cable 50-499ppm (A104)

Has this concentration been confirmed? ☐ NO

☒ YES (if so, how)

Has this concentration been confirmed by analytical? ☐ NO

☒ YES (if so attach copy)

Certification

I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of the waste and that all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed, including its classification as TSCA, RCRA, non-RCRA, Inherently Hazardous Waste. I authorize SALESCO SYSTEMS USA, INC.-AZ to obtain a sample from any waste shipment for purposes of re-certification.

Signature X [Signature]

Title ECC

Printed Name Brian McCavitt

Date 12-11-00

BELOW FOR SALESCO USE ONLY

Rolls Number:	Date Entered:	RSM/CSA:	Approved:

ATTACHMENT E
Current Electrical Equipment Profiles

ONYX ENVIRONMENTAL SERVICES, LLC

5720C NE 121st Avenue, Suite 105, Vancouver, Washington 98682-6244
☐ Recertification

WASTESTREAM INFORMATION PROFILE

CM0673

Approval Code

SDF requested ARL Technology requested DLF Generator No 453420 Generator EPA No. OR0140113218

Generator Name US Army Corps of Engineers Generator State No. ...

Address Boggsville Lock and Dam State Wastestream No. ...

City Cascade Locks State Oregon Country USA ZIP 97014 0150

SIC Code 4911 Source A69 Origin 1 Form B302 System Type M132

1. Waste Name PCB Contaminated Electrical Equipment Lab or Waste Area ...2. Process Generating Waste Clean up of Bradford Island Landfill3. Shipping Name RQ Environmentally Hazardous Substances, SolidHazard Class 9 UNNA No. UN2315 PG II RQ amt 1RQ Desc.: 1.DOT Desc.: 1.5. Waste Codes X012

Wastewater

Non Wastewater

Sub Category

6. Physical and chemical properties

PH	Specific Gravity	Flash Point (F)	Solids	% ash
a <u>< 2</u>	a <u>< .8</u>	a <u>< 80</u>	% suspended	water solubility
b <u>2 - 5</u>	b <u>.8 - 1.0</u>	b <u>80 - 100</u>	% settleable	BTU/lb
c <u>X 5 - 9</u>	c <u>1.0</u>	c <u>101 - 140</u>	% dissolved	
d <u>9 - 12.5</u>	d <u>1.0 - 1.2</u>	d <u>141 - 200</u>		
e <u>> 12.5</u>	e <u>X > 1.2</u>	e <u>> 200</u>	Free Liquid Range	0 to 0 %
const	const	f <u>X no flash</u>	const	

Physical State

s X solid

m ... semi-solid

l ... liquid

p ... pumpable semi-solid

f ... flowable powder

g ... gas

a ... aerosol

r ... pressurized liquid

d ... debris per CFR 261.45

u ... sharp

Hazardous Characteristics

a ... not reactive

w ... water reactive

c ... cyanide reactive

f ... sulfide reactive

e ... explosive

o ... oxidizing acid

p ... peroxide former

s ... shock sensitive

t ... temp sensitive

m ... polymerization/monomer

n ... carcinogen

i ... infectious

h ... inhalation hazard

Zone A, B, C, D

Odor/Describe:

a none X

b mild

c strong

Halogens

Br ... % Bromine

Cl ... % Chlorine

F ... % Fluorine

I ... % Iodine

Layers: a ... multi-layered:b ... bi-layeredc X single phase

Viscosity

By

Layer

a ... high (syrup)

b ... medium (oil)

c ... low (water)

d X solid

a ... high (syrup)b ... medium (oil)c ... low (water)d X solida ... high (syrup)b ... medium (oil)c ... low (water)d X solid

Used oil y/n

☐ HOC < 1000 ppm

☐ or > 1000 ppm

WTP NO. 562753

Chemical Composition [M = Marine Pollutant, O = Ozone Depleting Substance, U = Underlying Hazardous Constituent, I = TRI Chemical, C = Carcinogen]

Constituents	Range	Units	Constituents	Range	Units
Ballast	50	100%			
PCB	258 ppm				
Fuels	50	100%			
Fell	10	20%			

Total Composition Must Equal or Exceed 100%

Other:

1. Is the wastestream being imported into the USA?

Yes ___ No ☒ X

Does the wastestream contain PCBs regulated by 40CFR?

Yes ☒ X No ___

PCB concentration 258 ppm

2. Is the wastestream subject to Benzene NESHAP Notification and Control Requirements?

Yes ___ No ☒ X

If yes, concentration ___ ppm

3. Is the wastestream subject to RCRA subpart CC controls?

Yes ___ No ☒ X

Volatile organic concentration, if known ___ ppmw

CC approved analytical method Generator Knowledge ☒ X

4. Is the wastestream from a CERCLA or state mandated cleanup?

Yes ___ No ☒ X

5. Container Information (Identify UN container marking if known)

Packaging: Bulk Solid ___ Type/Size: CY Boxes Bulk Liquid Type/Size: Drum ☒ X Type/Size: 551A2

Other: ___

Shipping Frequency: Units 7 Per Month Quarter ___ Year ☒ X One time Other

6. Additional Information:

GENERATOR CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

Brian McCavit
NAME (PRINT OR TYPE)

541-374-4575
PHONE

5-18-01
DATE

[Signature]
SIGNATURE

ECC
TITLE

FACILITY NOTIFICATION

If approved for management, ONYX has all the necessary permits and licenses for the waste that has been characterized and identified by this profile

WTP NO. 562753

ONYX ENVIRONMENTAL SERVICES, LLC

5720C NE 121st Avenue, Suite 105, Vancouver, Washington 98682-6244☐ Recertification

WASTESTREAM INFORMATION PROFILE

Approval Code

TSDF requested PTA Technology requested Incin Generator No. 453420 Generator EPA No. OR0140113218

1. Generator Name US Army Corps of Engineers

Generator State No.

Address Bonville Lock and Dam

State Wastestream No.

City Cascade Locks State Oregon Country USA ZIP 97014-0150

SIC Code 4911 Source A69 Origin 1 Form B407 System Type M043

2. Waste Name PCB Contaminated Electrical Equipment

Lab or Waste Area

3. Process Generating Waste Clean up of Bradford Island Landfill

4. Shipping Name RQ Environmentally Hazardous Substances Solid

Hazard Class 9 UN/NA No. UN2315 PG II RQ amt 1

RQ Desc: 1

DOT Desc: 1 Polychlorinated Biphenyls

5. Waste Codes No 30

Wastewater

Non Wastewater

Sub Category

6. Physical and chemical properties

PH	Specific Gravity	Flash Point (F)	Solids	% ash
a < 2	a < .8	a < 80	% suspended	water solubility
b 2 - 5	b .8 - 1.0	b 80 - 100	% settleable	BTU/lb
c X 5 - 9	c 1.0	c 101 - 140	% dissolved	
d 9 - 12.5	d 1.0 - 1.2	d 141 - 200		
e > 12.5	e X > 1.2	e > 200	Free Liquid Range 0 to 0 %	
exact	exact	f X no flash exact		

Physical State

- ☒ solid
☐ semi-solid
☐ liquid
☐ pumpable semi-solid
☐ flowable powder
☐ gas
☐ aerosol
☐ pressurized liquid
☐ debris per CFR 261.4)
☐ sharp

Hazardous Characteristics

- a air reactive
 w water reactive
 c cyanide reactive
 f sulfide reactive
 e explosive
 o oxidizing acid
 p peroxide former
 m shock sensitive
 i temp sensitive
 m polymerization/monomer
 n carcinogen
 i infectious
 h inhalation hazard
 Zonc. A, B, C, D

Color

Layers: a multi-layered: b bi-layered c X single phase

Viscosity a high (syrup)
 By b medium (oil)
 Layer: c low (water)
 d X solid

a high (syrup)
 b medium (oil)
 c low (water)
 d X solid

a high (syrup)
 b medium (oil)
 c low (water)
 d X solid

Odor/Describe:

- a none X
 b mild
 c strong

Halogens

Br % Bromine
 Cl % Chlorine
 F % Fluorine
 I % Iodine

Used oil y/n

- ☐ HOC <1000 ppm
☐ or > 1000 ppm

WTP NO. 562718

Chemical Composition [M = Major Pollutant, O = Organic Depleting Substance, U = Underlying Hazardous Constituent, T = Toxic Chemical, C = Carcinogen]

Constituents	Range	Units	Constituents	Range	Units
Insulation Capacitors	50	100%			
PCB	20 %				
Coupling Capacitors	50	100%			

Total Composition Must Equal or Exceed 100%

Other:

1. Is the wastestream being imported into the USA?

Yes ___ No X

2. Does the wastestream contain PCBs regulated by 40CFR?

Yes X No ___PCB concentration 20,000,000 ppm

3. Is the wastestream subject to Benzene NESHAP Notification and Control Requirements?

Yes ___ No X

If yes, concentration ___ ppm

4. Is the wastestream subject to RCRA subpart CC controls?

Yes ___ No X

Volatile organic concentration, if known ___ ppmw

CC approved analytical method ___ Generator Knowledge X

5. Is the wastestream from a CERCLA or state mandated cleanup?

Yes ___ No X

6. Container Information (Identify UN container marking if known)

Packaging: Bulk Solid Type/Size: CY Boxes Bulk Liquid Type/Size: Drum X Type/Size: 551A2

Other: ___

Shipping Frequency: Units 7 Per Month Quarter X Year X One Time ___ Other ___

7. Additional Information

GENERATOR CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize sampling of any waste shipment for purposes of recertification.

NAME (PRINT OR TYPE) Brian M. C. SmithPHONE 541-874-4555 DATE 5-18-01SIGNATURE [Signature]TITLE ECC

FACILITY NOTIFICATION

I approved for management, ONYX has all the necessary permits and licenses for the waste that has been characterized and identified by this profile.

WIP NO. 562718



WASTE MANAGEMENT
Columbia Ridge, Hillsboro, Riverbend, Graham Road, Capitol, Wenatchee

WASTE PROFILE SHEET TERMS & CONDITIONS

Profile Number: _____

Expiration Date: _____

Profile Addendum Attached? _____

☐ Yes ☐ No

Service Agreement on File?

☐ Yes ☐ No

This form is to be used to comply with the requirements of governmental waste screening criteria.

Generator/Site Name: US Army Corps of Engineers 2. SIC Code: 9999
 Site Address: Bonneville Lock & Dam 4. Site City: Cascade Locks
 Site State: OR 7. Zip Code: 97014 6. Site Country: _____
 Generator USEPA/Federal ID#: OR 014043218 9. Site Phone: _____
 Customer Name: Foss Environmental 11. Customer Phone: 503-978-7274
 Customer Contact: K. Benedict 13. Customer FAX: 503-289-6568

Waste Description, Category: Ceramic, debris 3. Billing Address: Foss Environmental
 State Waste Code: N/A 5420 N. LAGOOD Ave
 Process Generating Waste: ceramic electrical Portland, OR 97217
equipment, circuit boards, plastic, debris
 Transporter/Transfer Station: Foss Environmental 5. Shipping Method: 20 yd Box
 Estimated Quantity (Weight & Vol.): ~10-15 yds per ☒ Job ☐ Year ☐ Other _____
 Delivery Date(s): 12/22/00
 Personal Protective Equipment Requirements: NONE

10. Is this a US Dept. of Transportation (USDOT) Hazardous Material?

☐ Yes ☒ No (If no, skip 10, 11 and 12)

11. Reportable Quantity: _____

12. Hazard Class / I.D. #:

13. Shipping Name: NON RCRA / NON DOT Regulated*Check if additional information is attached. Indicate the number of attached pages: 1

1. Is the waste represented by this waste profile sheet a "Hazardous Waste" as defined by USEPA, Canadian, Mexican, State, or Provincial regulation? ☐ Yes ☒ No
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or regulated concentrations of Polychlorinated Biphenyls (PCBs)? ☐ Yes ☒ No (~6ppm)
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material? ☒ Yes ☐ No
4. Has all relevant information within the possession of the Generator and Customer regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor? ☒ Yes ☐ No
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules? ☒ Yes ☐ No ☐ N/A
6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ☒ Yes ☐ No

1. Management Method: _____
 2. Designated Facility: _____ 3. Hours of acceptance: _____ ☐ N/A
 4. Precautions, Special Handling Procedures, or Limitations on Approval: _____

Generic Approval: ☐ Yes ☐ No

Special Waste Decision:

☐ Approved☐ Disapproved

Sales Person: _____ Date: _____ Technical Manager: _____ Date: _____

GENERATOR AND CUSTOMER MUST READ AND SIGN REVERSE HEREOF INITIAL _____

INITIAL